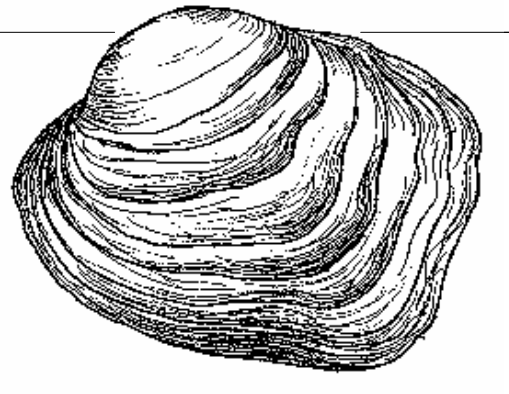
Freshwater Mussel Fact Sheet



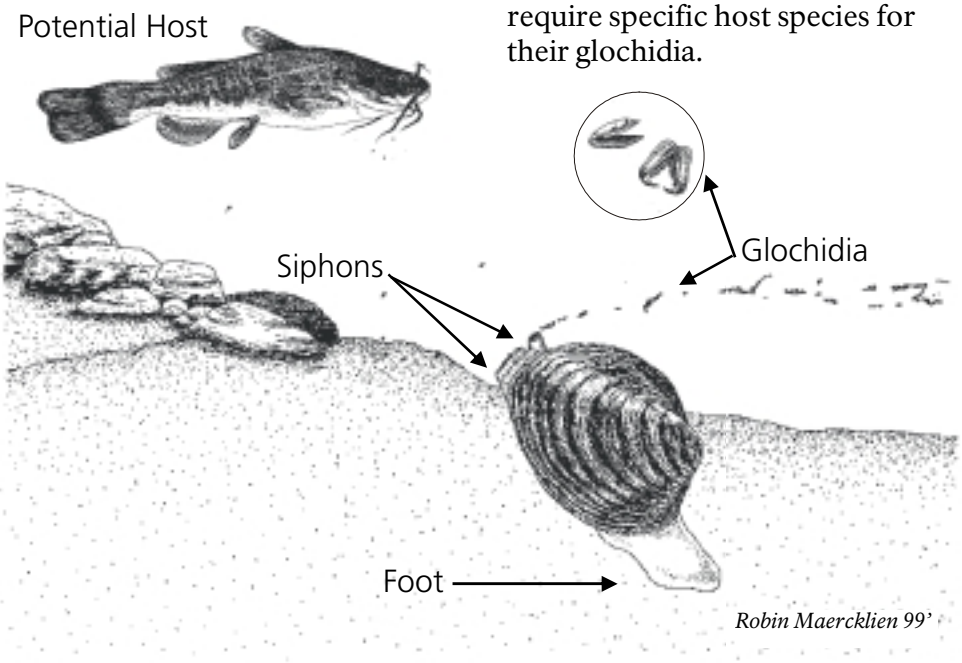
What is a freshwater mussel?

Although looking at mussels might seem about as exciting as looking at rocks, they are actually amazing animals with many secrets yet to be learned! Mussels are bivalve mollusks (animals with soft bodies inside a hard two-part shell) and are sometimes commonly called clams. Mussels filter feed. This means they take in many gallons of water each day and remove algae and bacteria for food by filtering the water through their gills.

Mussel Life Cycle

Most species of freshwater mussel spend the first 1-3 months of their lives living on the gills or fins of a fish. The tiny juvenile mussels, called glochidia, use the nutrients in the fish's blood to develop their internal organs. When the juveniles fall off, the mussels will grow into adults if they land on a suitable area of the river bottom. Some species live for 80 years or more.

Mussels must attract fish close enough for the baby mussels to attach to them. Some mussels produce small packets filled with glochidia that look like tasty insects to fish. Others produce flaps that look like minnows (complete with eye spot, tail and fins!). Several species troll "lures" behind them that wave in the current like fish bait. Regardless of how they trick the fish, when the imitation bait is taken, the packets break releasing the glochidia. Some mussel species require specific host species for their glochidia.



The requirement of specific host fish, competition from exotic species and their need for free flowing, unpolluted rivers has resulted in the endangerment and extinction of many mussel species. Today, almost two-thirds of all mussel species in the United States are threatened, endangered or already extinct.

Riverway Refuge

The St. Croix and Namekagon rivers are home to 40 species of freshwater mussels because of the variety of underwater habitats like boulder fields, gravel beds, sand bars and mucky backwaters. Researchers believe that the mussel species found on the rivers historically are all still here.

In order to protect the federally endangered species and the numerous state threatened species, it is illegal to take any live mussel or empty mussel shell from the St. Croix and Namekagon rivers. Even moving a mussel is prohibited because they can suffocate if you place them back into the sand upside down!

Native Riverway Mussels

The following species occur on either the St. Croix or Namekagon rivers. Abbreviations: ED = endangered, TH = threatened, SC = Species of Concern, CA = Candidate for putting on the endangered species list.

Common Name	Scientific Name	Protection Status		
		Federal	Minnesota	Wisconsin
Mucket	*Actinonaias ligamentina*		TH	
Elktoe	*Alasmidonta marginata*		TH	SC
Threeridge	*Amblema plicata plicata*			
Cylindrical Papershell	*Anodontoides ferussacianus*			
Rock Pocketbook	*Arcidens confragosus*		ED	TH
Spectaclecase	*Cumberlandia monodonta*	CA	TH	ED
Purple Wartyback	*Cyclonaias tuberculata*		TH	ED
Butterfly	*Ellipsaria lineolata*		TH	ED
Elephant-ear	*Elliptio crassidens crassidens*		ED	ED
Spike	*Ellipto dilatata*		SC	
Snuffbox	*Epioblasma triquetra*		TH	ED
Ebonyshell	*Fusconaia ebena*		ED	ED
Wabash Pigtoe	*Fusconaia flava*			
Plain Pocketbook	*Lampsilis cardium*			
Higgins Eye	*Lampsilis higginsi*	ED	ED	ED
Fat Mucket	*Lampsilis siliquoidea*			
White Heelsplitter	*Lasmigona complanata*			
Creek Heelsplitter	*Lasmigona compressa*		SC	
Fluted-shell	*Lasmigona costata*		SC	
Fragile Papershell	*Leptodea fragilis*			
Black Sandshell	*Ligumia recta*		SC	
Washboard	*Megalonaias nervosa*		TH	SC
Threehorn Wartyback	*Obliquaria reflexa*			
Hickorynut	*Obovaria olivaria*			
Sheepnose	*Plethobasus cyphyus*	CA	ED	ED
Round Pigtoe	*Pleurobema sintoxia*		TH	SC
Pink Heelsplitter	*Potamilus alatus*			
Pink Papershell	*Potamilus ohiensis*			
Giant Floater	*Pyganodon grandis*			
Winged Mapleleaf	*Quadrula fragosa*	ED	ED	ED
Monkeyface	*Quadrula metanevra*		TH	TH
Pimpleback	*Quadrula pustulosa pustulosa*			
Mapleleaf	*Quadrula quadrula*			
Salamander Mussel	*Simpsonaias ambigua*		TH	TH
Creeper	*Strophitus undulatus*			
Lilliput	*Toxolasma parvus*			
Pistolgrip	*Tritogonia verrucosa*		TH	TH
Fawnsfoot	*Truncilla donaciformis*			
Deertoe	*Truncilla truncata*			
Paper Pondshell	*Utterbackia imbecillis*			

Learn More

Field Guide to the Freshwater Mussels of Minnesota, Bernard E. Sietman, MN Dept. of Natural Resources, 2003.
Freshwater Mussels of the Upper Mississippi River, Wisconsin Dept. of Natural Resources, 2003.
http://www.inhs.uiuc.edu/chf/pub/mussel_man/cover.html
http://courses.smsu.edu/mcb095f/gallery/